

Book Reviews.

PRACTICAL URINALYSIS AND URINARY DIAGNOSIS. By Charles W. Purdy, M. D. The F. A. Davis Company, Publishers, 1894.

"To the professors, past and present; to the fellows, alumni, and students of my alma mater, the following pages are affectionately inscribed by the author." Such is the dedication of a book of 357 pages, claiming to be a practical guide for chemical and microscopical analysis of the urine. The dedication is unquestionably pompous, though one cannot help wondering how the "past professors" of the alma mater can enjoy it. "Over twenty-five years' experience, coupled with a somewhat liberal examination of the literature of this subject, as well as considerable practical observation and experiment, have enabled the author to contribute some original matter and methods, which he trusts will prove to be an advance in certain practical departments of this subject." This sentence strikes us in the preface, for it correctly places the standard of the whole work. Indeed, there is "some original matter" and a "liberal examination of the literature"—rather a liberal perusal.

The book is, no doubt, a good one; though not exactly practical in the sense of the author. He is too lavish in the perusal of the literature, and brings a good deal of matter that the practitioner must consider burdensome. The book is too much of a compilation, mainly from German authors, from whom the majority of the illustrations are borrowed. Among these, again, Peyer is the favorite author.

On page 71 the highly important "detection of albumin in the urine" begins. The first method is described under the title of "heat." Indeed, this method is the best even in our days; but if we use nitric acid for discrimination between phosphates and albumin, we are liable to be mistaken; especially if only small quantities of the albumin be present, since the slightest surplus of the acid will dissolve the albumin. All that is needed is a few drops of acetic acid (equal parts of a saturated solution of glacial acetic acid and water), which will not affect even slight traces of albumin. This method has proven the best in our hands, as well as in those of practitioners generally. Nitric acid should never be used. The author recommends a method with a solution of chloride of sodium and one or two drops of strong acetic acid. This method is superfluous, if we use dilute acetic acid. Only highly alkaline urine needs the addition of dilute acetic acid, in order to obtain the albumin test by boiling. The above mentioned simple test for albumin renders most of the eighteen methods described by the author superfluous. He correctly remarks on page 78 that he has, from long experience, come to be somewhat suspicious of tests for albumin which require previous acidification of the urine when searching for minute traces of albumin.

On page 101 another important chapter is dealt upon, viz., the "detection of sugar in the urine." Six different tests are described, all good, no doubt, but far too complicated. The simplest test (Moore's), mixing two-thirds of the urine with one-third of a ten per cent. solution of caustic potash with the characteristic color-changes by heat from

canary yellow to dark brown and black, is not even mentioned. Still it will yield satisfactory results, even in approximating the quantity of grape sugar. It is only exceptionally that we must resort to the fermentation test. Einhorn's small apparatus proved to be rather serviceable, though the author objects to it.

On page 159 we find the following remark: "The smaller crystals (of ammonium urate) often closely resemble those of sodium urate, and by some they are claimed to be identical." In the first place, neither sodium urate nor ammonium urate are a crystalline deposit, being amorphous, granular and globular; in the second place, the small dumb bells of ammonium urate, as correctly depicted by Peyer, are formations in *statu nascenti* and cannot be mistaken for sodium urate. The latter is acid, the former alkaline.

On page 160 the author describes the forms of calcium oxalate. He correctly states that the so-called "dumb-bell crystals," which are no crystals at all, are merely the edge views of ovoid or circular discs with depressed centres. He omits to mention the concentric striations which every good lens shows upon the discs and brings the rather poor illustration of Peyer, likewise deficient in striations.

On page 166, speaking of the deposit of calcium phosphate and triple phosphates, he says that the urine, holding these salts, effervesces upon the addition of an acid. This is a mistake. Effervescence is due either to ammonium carbonate, always kept in solution and never seen in the deposit or to calcium carbonate. The latter salt producing small prisms is not even mentioned. Still it is of importance, because, unless due to drinking certain mineral waters, it invariably indicates wasting diseases of the osseous system, rhachitis, caries, osteitis, etc., in which the lime salts are dissolved out and appear in the urine. On page 221 the author, however, mentions calcium carbonate concretions.

The chapters on "Hæmaturia" and "Pyuria" cannot be called good. Obviously, the microscope is called upon to determine the presence or absence of blood, pus corpuscles and epithelium. The latter will, in the majority of the cases, positively fix the source of the hæmorrhage or of the inflammation, which invariably is accompanied by pus-corpuscles, the products of the epithelia. The study of the epithelia is, therefore, of the utmost importance in microscopical urine analysis. If we look at figure 22, as illustration of epithelia after v. Jaksch, we can rest satisfied that with such a poor knowledge of the epithelia of the genito-urinary tract, no positive diagnosis of the locality of an inflammatory process, or any disease, is possible. The reviewer, who for twenty years has examined thousands of samples of urine, cannot but be astonished at the deficiency of these chapters. The author has, rather unjustly, ignored everything that was done in this line for the last score of years in our country. Why rely upon Germaus, if so much original work was done here?

If the author makes the statement on page 294, that the acute interstitial nephritis has been described under several names, viz., suppurative nephritis, acute interstitial nephritis, pyelo nephritis and surgical kidney, he simply proves that he is not conversant with the pathology of the kidneys and the diagnosis of their diseases from microscopical analysis of the urine. The headings above named mean widely different conditions. We cannot be surprised if, in the description of benign vesical growths, he omits the all-important shreds of fibrous connective tissue. If he says on page 309 that the "washed out" bits of tissue have no diagnostic value, since both malignant and benign growths of the bladder may prevent papillary surfaces of practically the same microscopical appearance, he is completely mistaken, because the appearance of such shreds is widely different in the instances mentioned. The second portion of the book, dealing with microscopical examination of the urine is decidedly inferior to the first part, mainly chemical in nature. At present we do

not hesitate to call the book a good one, as far as chemical analysis goes. This, however, is the least important for the practitioner, who lacks time for minute chemical examinations. What every practitioner ought to know, is the microscopical analysis. In order to render the book a perfect one, a thorough study of the pathology of the genito-urinary organs would be required. Thus the author would be enabled to tell us much more about cystitis, pyclitis and nephritis. He would be able to diagnosticate from the microscopical analysis of the urine, a number of diseases, to which, at present, no allusion is made; for instance, enlarged prostate, spermato-cystitis, masturbation, vaginitis, endometritis, sarcoma of the bladder, of the kidneys, etc.

C. HEITZMAN.

DIAGNOSTIC NEUROLOGY.—By Alexander B. Shaw, M.D.
Pp. 114. Illustrated. St. Louis, 1894.

There is but little doubt that a work on the diagnosis of nervous diseases, if couched in simple and comprehensive English, would be well received by the general practitioner. While we are in sympathy with the author's intention, we cannot but regret that carelessness in applying the rules of syntax and in the construction of sentences have marred a work which might otherwise deserve a fair share of praise. Were these errors trivial or isolated it would not be worth while referring to them, but they occur with such surprising frequency and startling *abandon* that even the most liberal minded critic could not disregard them. An instance of what is meant is supplied in the paragraph on "Spastic or Tetanoid Paraplegia." The initial sentence supplies the startling information that "in well-developed cases the knees are often unnaturally approximated while seated." We neither admit the possibility of "knees being seated" nor that the author intended to convey any such meaning. Again, in the same paragraph we are informed "that the knees and feet are disposed to become interlocked, often crossing each other in walking." This is a feat that would floor a professional contortionist. It is unnecessary to quote further. The whole book teems with sentences of careless, and often of grotesque construction, which could not avoid seriously detracting from the value of a work of much greater pretension than the one under consideration. Most of the illustrations are greatly inferior to those which adorn the pages of other recent volumes. They are, in the main, reproductions of very amateurish photographs. Probably future editions, freed from the objectionable features which tarnish this one, will deserve only words of praise.

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